THE *Jackson System*

"Nailing to Metal"

STEEL CHANNELS and INSERTS

for

Nailing Materials to Steel, Concrete, and Masonry.
Mechanical Fastenings for Acoustical Materials.
Metal Furring for Walls and Concrete Inserts.

Sole Distributors

THE MID-WEST ACOUSTICAL & SUPPLY CO.

General Office and Warehouse—1812 St. Clair Ave., Cleveland 14, Ohio

Telephone: MAin 0031

the Jackson system of nailing to metal is an all metal system for supporting and fastening securely by mechanical devices a number of building materials used for ceiling and wall construction.

The basic devices of the Jackson System are a continuous rigid and light weight furring member of zinc-coated steel and a spear point nail. The dove tail profile of this furring member incorporates an inverted V-shaped nailing groove throughout its length. The nail is forced into the nailing groove of the metal furring member and locked in place by its shoulder (as shown in the circle above).

Spear point nails are manufactured in various lengths to meet construction requirements. Other metal parts, consisting of various clips and splines, are used to complete the system and are shown herein.

Jackson System is installed by and available through all acoustical contractors and manufacturers.

the uses of Jackson system are as varied as the architects' ingenuity in employing this nailable and economical "metal furring" for installing the following products:

Acoustical tiles and treatments.
Thermal and sound insulating materials.
Ceiling and wall boards of fibre, gypsum, etc.
Perforated or plain asbestos panels.
Plaster bases of gypsum.
Nailable concrete inserts.
Metal nailable ceiling framing.

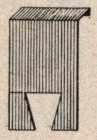
Illustrated in this bulletin are several methods of installing acoustical materials with Jackson System. Architects can specify Jackson System with the utmost confidence.

For furthur engineering and construction information write to:
The Mid-West Acoustical & Supply Co.
1812 St. Clair Avenue, Cleveland 14, Ohio

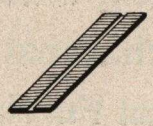
mounting furring strips preparatory to applying ceiling base using the JACKSON SYSTEM.

perforated asbestos panels attached to JACKSON SYSTEM.

Jackson system parts



furring clip



tile attachment spline

butt wall furring strip

furring strip or concrete insert

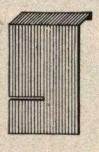
furring strip splicer

tile reinforcement spline

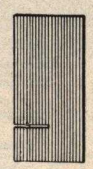
Jackson system

fastening ceiling base of plasterboard into position using the JACKSON SYSTEM.

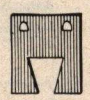
ceiling base ready for application of acoustical tile. Note the clips used in the JACKSON SYSTEM.



butt wall furring clip



straight-leg butt wall clip (long)



straight-leg furring clip (short)

plasterboard butt joint clip

butt wall tile reinforcement angle

spear point nail

advantages

Jackson System has been carefully engineered and field tested to provide the best possible means of installing suspended acoustical ceilings. It provides a permanent, safe, economical means to install acoustical tiles and other ceiling materials of practically every size, type and manufacture. It is equally adaptable to remodeling as well as to new construction.

All parts of the system are incombustible and are not affected by temperature changes.

The rigid light weight furring member of zinc-coated steel is easily handled on the job.

Installation is direct and speedy. Special tools are not required.

Expense and delays of ordinary plastering are eliminated.

Accurately machine-kerfed acoustical tiles assure uniform setting with all tiles finished to an even plane.

Tiles cannot work loose. Each tile is securely held by positive mechanical fastenings.

Close fitting splines prevent passage of air between the edges of the tiles.

index

acoustical tile cemented to plasterboard	page 8
carrying bars	page 11
concrete inserts	page 10
installation	pages 4-5
kerfed acoustical tile	page 6
parts	pages 2-3
perforated asbestos panels	page 7
specifications	page 9

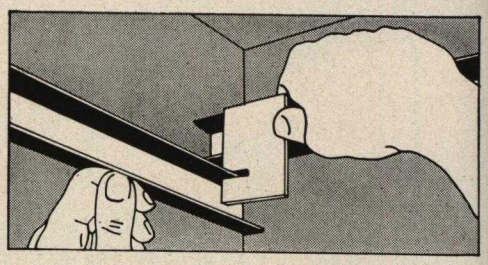
Jackson System installation

Install Channel Carrying Bars. The first step in installing the complete framing for the acoustical ceiling finish is fastening 1½ x ⅜ inch channel carrying bars at the correct height and perfectly level. Carrying bars, which usually run the long way of the room, are installed 6 inches out from parallel walls and not over 4 feet-0 inch on centers.

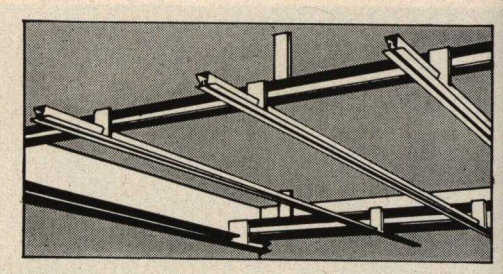
Install Jackson Ceiling Framing. Illustrations Nos. 1-3 inclusive show the steps taken to install the two basic furring members of Jackson System. Note how easily these members are attached to the carrying bars to form a permanent, positive all-metal ceiling framing. Illustration No. 4 shows a completed section framing ready for the acoustical tile or other finish ceiling material.

Install Kerfed Acoustical Tile. Illustrations Nos. 5-9 inclusive show the steps in the installation of the acoustical tile. Note how the acoustical tiles are fastened to the furring strips and reinforced on the sides running at right angles to the furring strips by means of tile reinforcement splines.

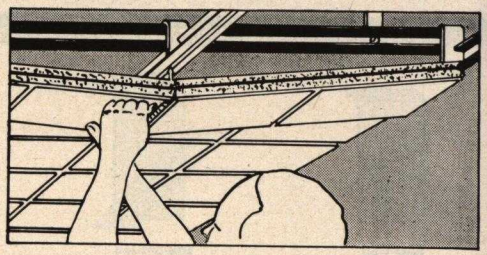
Thus Jackson System gives an installation that is direct, speedy and decidedly economical. Each tile is securely held by positive mechanical fastenings with close fitting splines which prevent passage of air between the edges of the tiles.



1 **install butt wall furring strips** • At both short ends of the room — where the ceiling finishes or butts against the wall — install the butt wall furring strip. Attach this strip to the channel carrying bars with the butt wall furring clips, as illustrated. Next . . .

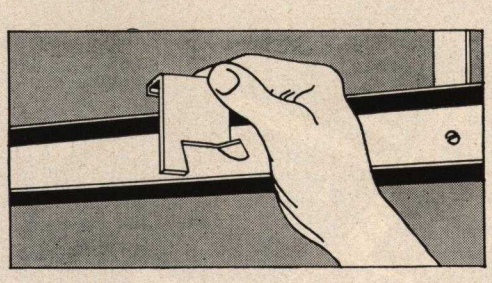


4 **ready for the tile** • Illustration shows supporting members of the metal ceiling suspension system ready to receive and support the acoustic tile units.

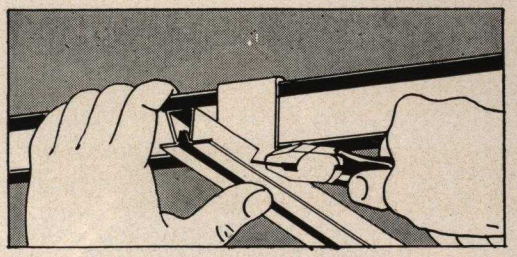


7 **complete the course** • To install closure tiles at end of each course, place an attachment spline in the butt joint of two tile units. Engage the groove of one tile with the spline of the tile already installed. Engage the groove of the other tile in the flange of the butt wall furring strip. To fasten both tiles, apply upward pressure until the spear point nails engage the continuous furring strip.

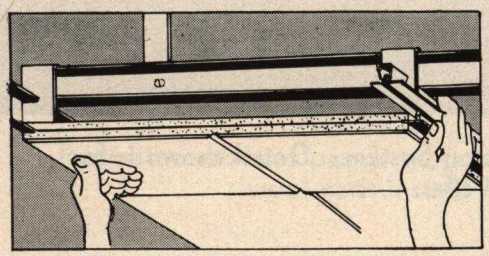
Jackson system



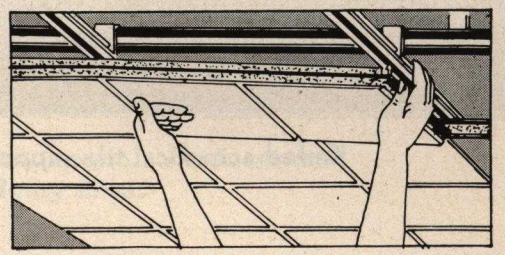
2 **set clips for furring strips** • To fasten all other cross furring strips, place the furring clip, as illustrated, on the carrying channel. Space clips to accommodate the size of acoustic tile to be installed. Then . . .



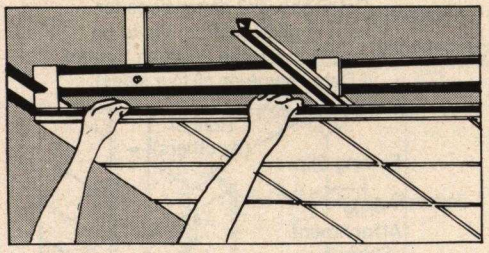
3 **fasten furring strips in place** • To fasten the metal nailing furring strips to the channel carrying bars, bend down the leg of the furring clip over the furring strip with pliers, as illustrated.



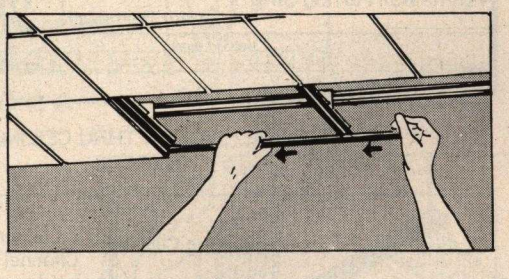
5 **start the acoustic tile** • Start the tile at the short end of the room. Insert the lower flange of the butt wall furring strip into the groove of the acoustic tile. Place an attachment spline—with spear point nails inserted—into the other end of the acoustic tile unit. Snap in place as illustrated.



6 **continue the course** • All other acoustic tile—except when finishing at the other short end of the room—are installed as illustrated. Engage the groove in the acoustic tile to the attachment spline at the butt joints. At the other end of the tile unit, snap an inserted attachment spline in place.

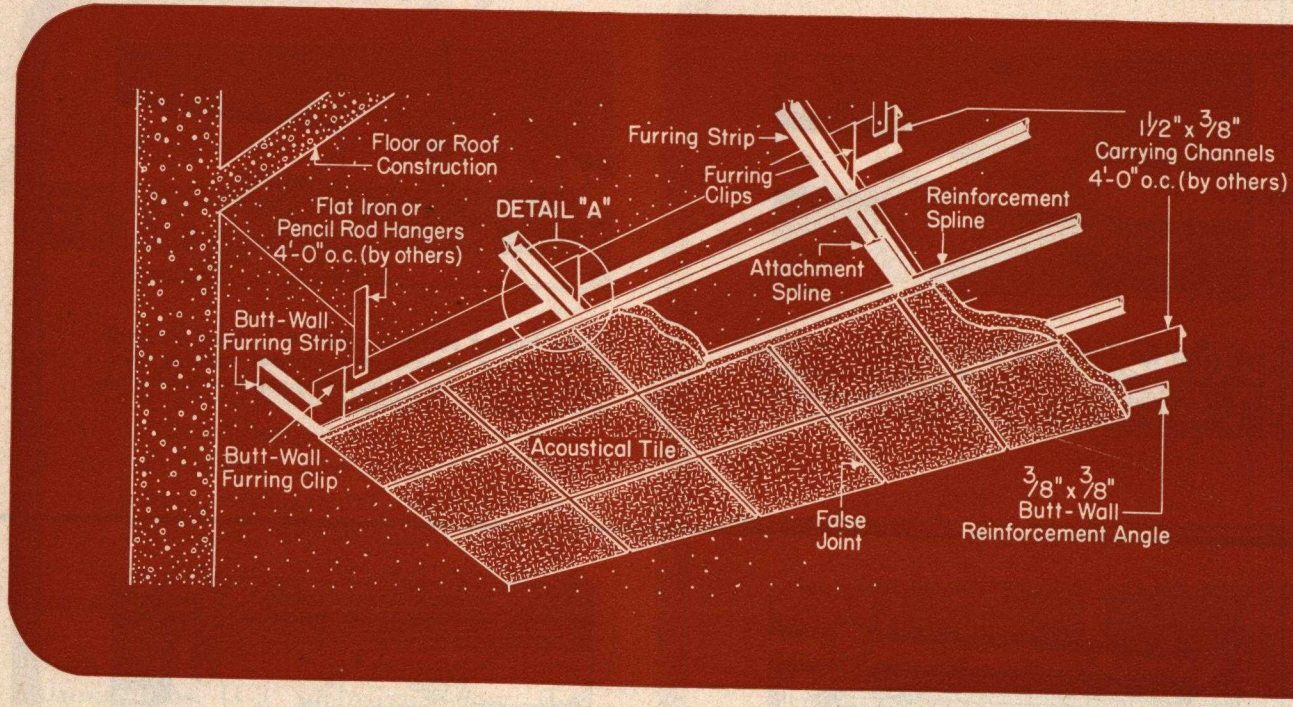


8 **install the reinforcement spline** • After each course of tile is fastened in place, insert the reinforcement (or T) spline as illustrated—to bear on the butt wall furring strip and attachment splines. This reinforcement spline (4 feet long) should be installed in broken joints on alternate courses—thus supporting tile on all four edges, sealing joints and preventing "breathing."



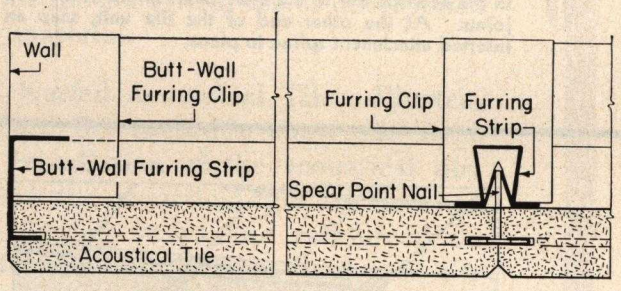
9 **install closure tiles on long wall** • Engage two acoustic tile units. Support the three sides of these tiles as previously described. Slide the butt wall tile reinforcement angle (3/8 x 3/8 inch) through the grooved fourth side of these tiles—to complete the continuous supports. Repeat this procedure to the end acoustic tile unit.

kerfed acoustical tile

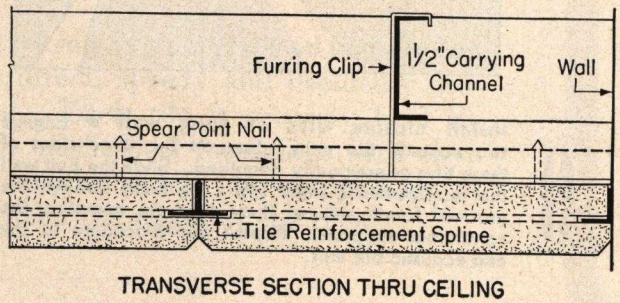


Kerfed acoustical tile supported by Jackson System. Detail shown is for 12 to 24-inch tiles.

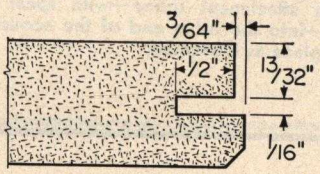
construction details



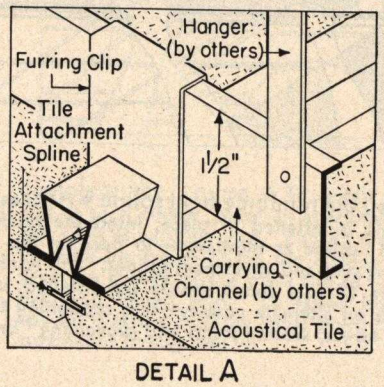
LONGITUDINAL SECTION THRU CEILING



TRANSVERSE SECTION THRU CEILING



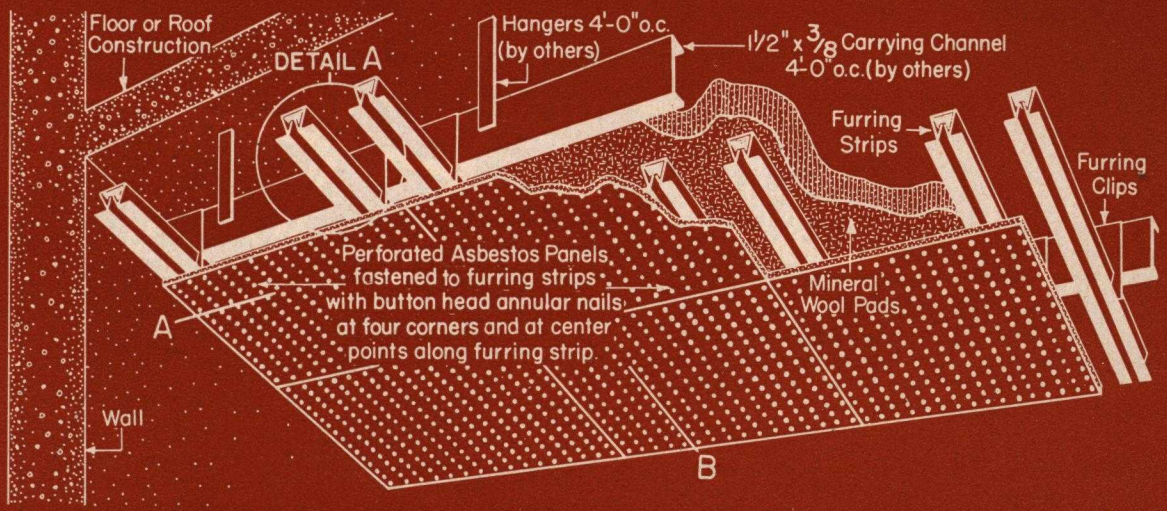
Detail showing dimensions for kerfing of acoustical tile to be suspended by The Jackson System (Detail same on all four sides)



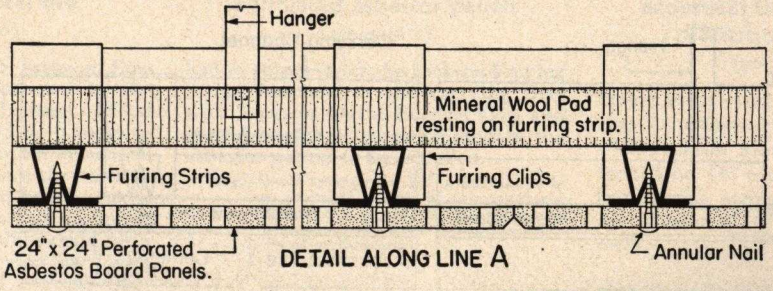
DETAIL A

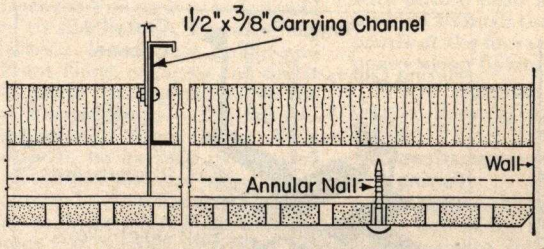
Jackson system

perforated asbestos panels

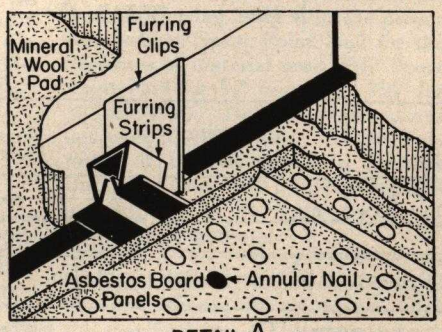

Floor or Roof Construction
DETAIL A
Hangers 4'-0" o.c. (by others)
1½" x 3/8 Carrying Channel 4'-0" o.c. (by others)
Furring Strips
Furring Clips
Perforated Asbestos Panels, fastened to furring strips with button head annular nails at four corners and at center points along furring strip.
Mineral Wool Pads
A
B
Wall

Perforated asbestos panels supported by Jackson System. Note mineral wool pads installed on top of furring strips.



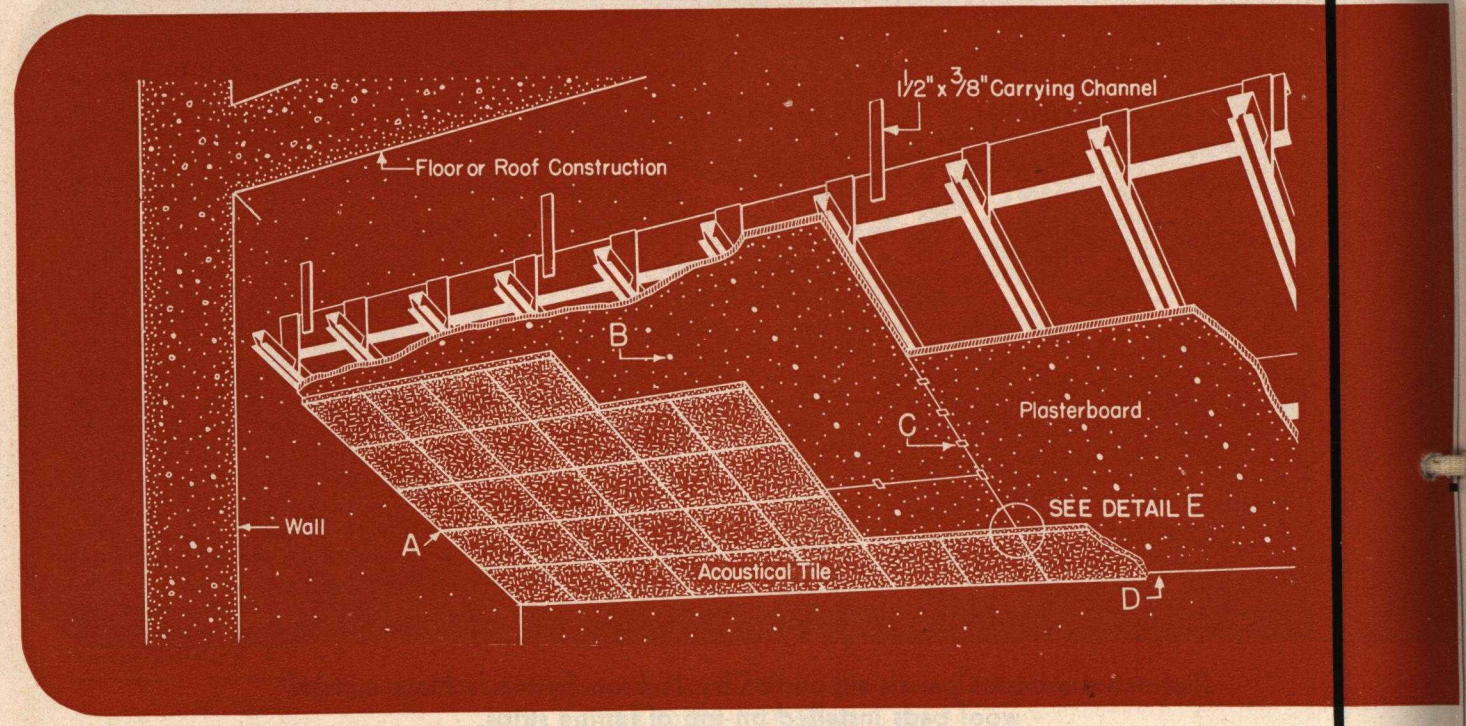


DETAIL ALONG LINE B



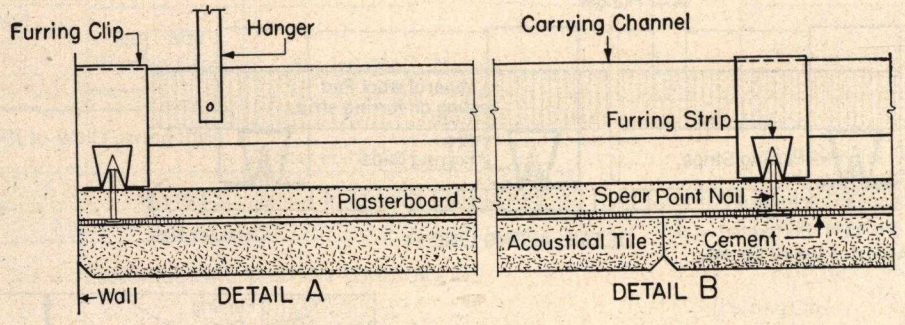
DETAIL A

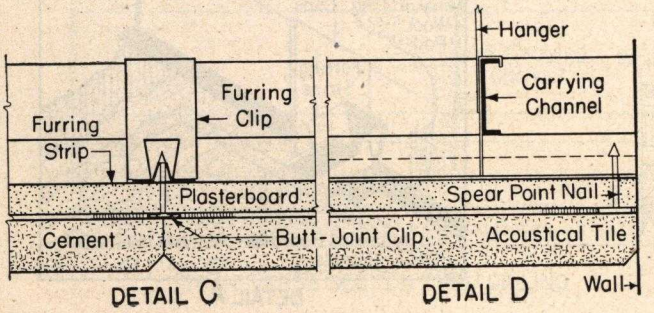
acoustical tile cemented to plaster board

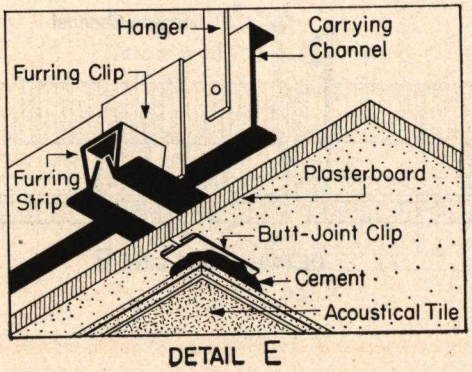


Plasterboard backing attached to Jackson System. Plasterboard backs-up and prevents breathing of suspended acoustical tile ceiling.

construction details







Jackson system

specifications

for furnishing and installing acoustical suspended, attached or furred ceilings with "the Jackson system" of mechanical fastening . . . permits the use of any acoustical material desired

areas to be treated—Where called for on Architect's plans, specifications and room finish schedule.

Note: No metal channel cross furring, metal lath or plaster required in areas where acoustical material is to be installed with Jackson System.

Note: In areas where acoustical material is to be installed, the electrical contractor shall furnish and install all the necessary supports required for his work to be located above the acoustical ceilings.

hangers—(Inserted under lathing specifications) Hangers shall be inserted in the concrete forms before concrete is poured or attached to steel beams or concrete arches in a manner approved by the Architect. Hangers or concrete inserts are to be spaced not over 4'-0" on centers. Flat iron extension hangers 1" x ⅛" are to be attached to hangers or concrete inserts. Extension hangers are to be properly bolted to the carrying bars. Pencil rod hangers may be used in lieu of flat iron hangers.

carrying bars—(Inserted under lathing specifications)

Note: Architect should select either the Channel Type or the Jackson Type and specify as given below. Erection specifications are the same for both types.

channel type—The carrying bars are to be 1½" x ⅜" channels spaced not over 4'-0" on centers and 6" out from parallel walls and fastened to the flat iron hangers with ⅜" bolts. Pencil rod hangers may be used in lieu of flat iron hangers.

Jackson type—(Alternate). The carrying bars are to be Jackson Furring Strip spaced not over 4'-0" on centers and 6" out from parallel walls. The carrying bars are to be fastened to the flat iron hangers by means of Jackson Straight Leg Furring Clip (Long), which has been attached to the hanger with ⅜" bolt.

erection—Carrying bars are to be installed so that they run parallel to the wall surfaces and the long way of the space to be treated. Where carrying bars end at a wall or beam, holes shall be cut into the construction and the carrying bars inserted therein. Carrying bars are to be erected perfectly level and true to line, located at proper height to receive the Jackson Metal Furring Strip and the acoustical material at the proper finished ceiling height as shown on Architect's plans, specifications and finished room schedule.

Specifications for special applications will be submitted upon request.

a Jackson method for any type of acoustical installation

Note: The architect should specify the type of Jackson System required for the acoustical installation as noted below.

kerfed acoustical tile

(*see page 6*)

furring strips—are to be Jackson Furring Strips properly fastened to the carrying bars with Jackson Metal Furring Clip and spaced on centers to accommodate the units of the acoustical tile to be installed. Where the acoustical material finishes and butts against the wall at the short ends of the room, install Jackson Butt Wall Furring Strip fastening it to the carrying bars with the Jackson Butt Wall Furring Clip.

acoustical tile—kerfed and rabbeted for the Jackson System is to be fastened in place to the Jackson Furring Strip with Jackson Attachment Spline and Spear Point Nails, engaging the tile at the butt joints running parallel to the Jackson Furring Strip. The attachment spline, with Spear Point Nails inserted, is to be inserted in the kerf of the acoustical tile and the tile attached to the Jackson Furring Strip by pushing the Spear Point Nails into the continuous "V" shaped groove of the Jackson Furring Strip, which locks the acoustical tile in place. At the butt joints of the acoustical tile that run at right angles to the furring strip, insert in the kerf of the tile the Jackson Tile Reinforcement Spline, which reinforces the tile and prevents passage of air at all four joints of the acoustical tile units.

perforated asbestos panels

(*see page 7*)

furring strips—are to be Jackson Furring Strips fastened to the carrying bars with Jackson Metal Furring Clip and spaced on center to accommodate the asbestos panels to be installed.

Note: Usual spacing for 24" x 24" panels is on alternate centers of approximately 23¾" x 21¼" so that the panels can be fastened to the strips along the third row of perforations.

perforated asbestos panels—are to be fastened to the Jackson Furring Strips with button head Annular Type Nails inserted through the perforations of the panels at the four corners and at center points along furring strips.

Where diameter of perforations is greater than 5/32" specify Spear Point Nails.

acoustical tile cemented to plasterboard backing

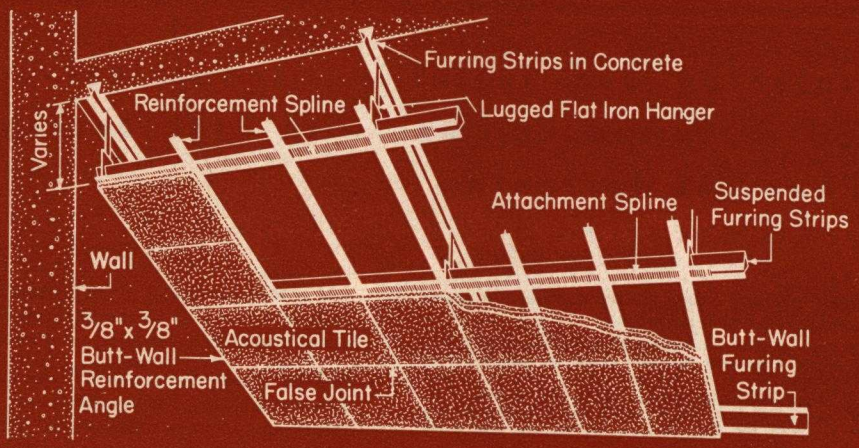
(*see page 8*)

furring strips—are to be Jackson Furring Strips fastened to the carrying bars with Jackson Metal Furring Clip and spaced on 16" centers. The first and last furring strips are to be installed approximately 2" from the parallel walls.

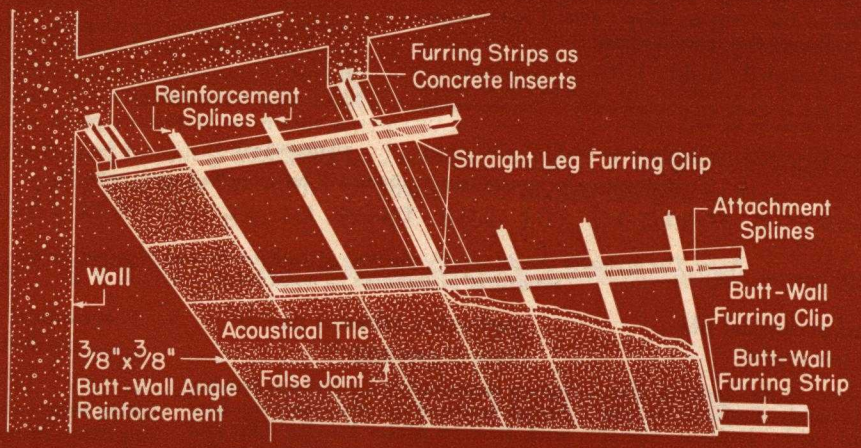
plasterboard—is to be attached to the Jackson Furring Strip with the proper size Jackson Spear Point Nail for the thickness of material used (25/32" Spear Point Nail for ⅜" material: 29/32" for ½" material). Nails are to be spaced not over 6" on centers. At the butt joints of the plasterboards, Jackson Butt Joint Clips with Spear Point Nails inserted are to be used spaced not over 6" on centers.

acoustical tile—is to be cemented to the plasterboard in accordance with the specifications of the manufacturer of the acoustical tile.

concrete inserts

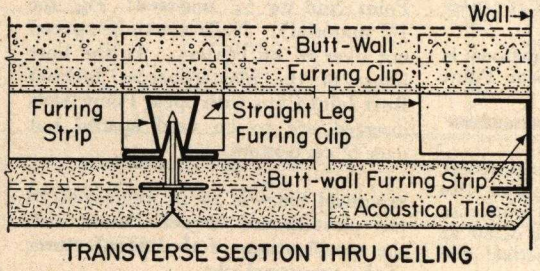


Jackson furring strips used as concrete inserts on flat concrete construction.

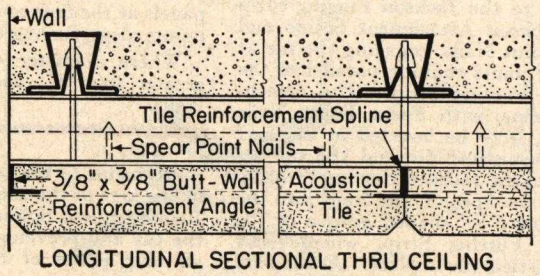


Jackson furring strips used as concrete inserts on ribbed concrete construction.

construction details

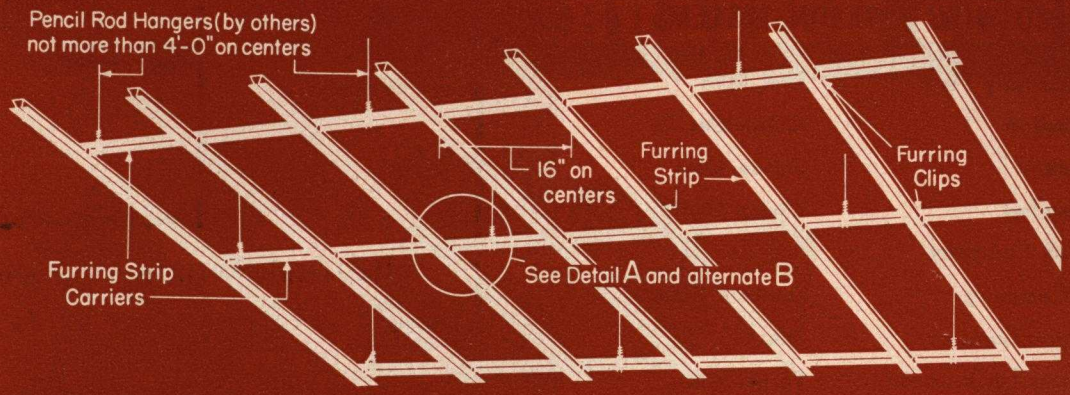


TRANSVERSE SECTION THRU CEILING

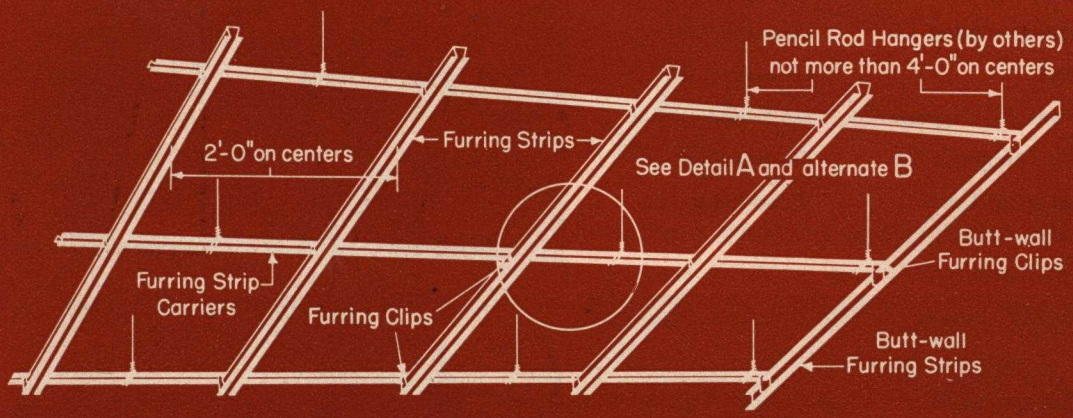


LONGITUDINAL SECTIONAL THRU CEILING

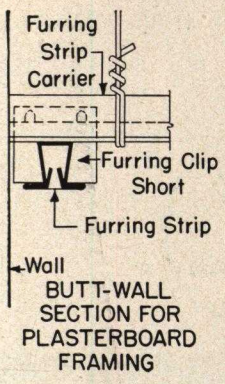
Jackson carrying bars



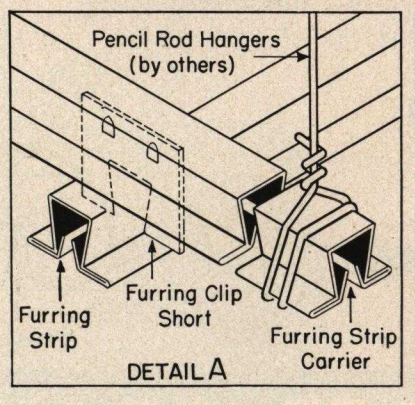
Jackson furring strips used as carrying bars for plasterboard panels.



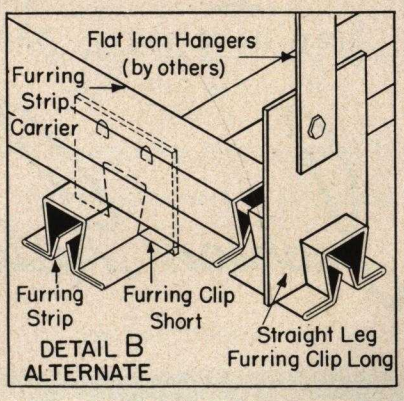
Jackson furring strips used as carrying bars for kerfed acoustical tile.



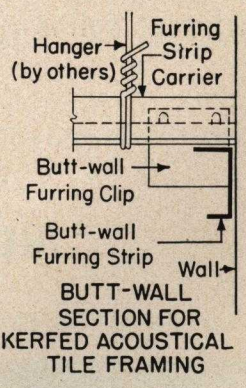
BUTT-WALL SECTION FOR PLASTERBOARD FRAMING



DETAIL A



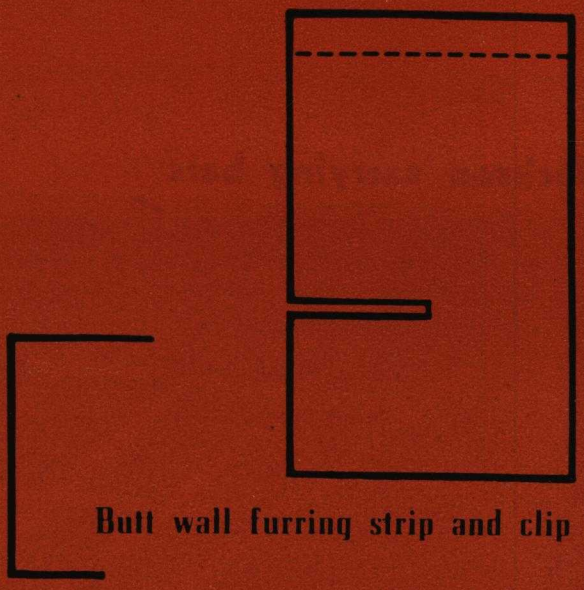
DETAIL B ALTERNATE



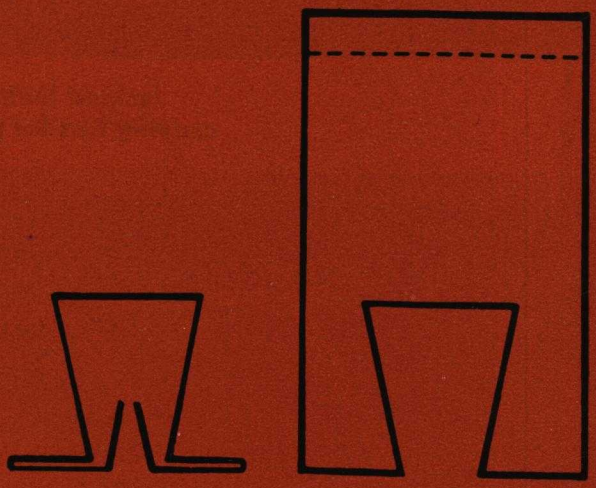
BUTT-WALL SECTION FOR KERFED ACOUSTICAL TILE FRAMING

REPRESENTATIVE ACOUSTICAL TREATMENTS INSTALLED WITH JACKSON SYSTEM

Chevrolet Assembly Plant	Flint, Mich.
Dravo Corporation	Philadelphia, Pa.
Dyers Restaurant	Toledo, Ohio
Eagle Supermarket	Clinton, Iowa
Eastman Kodak Company	Rochester, N.Y.
Ford Motor Company	Dearborn, Mich.
General Electric Company	Erie, Pa.
General Motors Truck-Coach	Pontiac, Mich.
General Motors Chevrolet	Cleveland, Ohio
J. L. Hudson Company	Detroit, Mich.
Halle Bros. Co.	Cleveland, Ohio
Highland Park Schools	Highland, Mich.
Mellon Institute	Pittsburgh, Pa.
Monmouth Manufacturing Co.	Cleveland, Ohio
O'Henry Hotel	Greensboro, N.C.
Pacific Telephone & Telegraph Co.	San Francisco, Calif.
Western Union Telegraph Co.	Cincinnati, Ohio
Wright Aeronautical Corp.	Wood-Ridge, N.J.

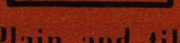


Butt wall furring strip and clip



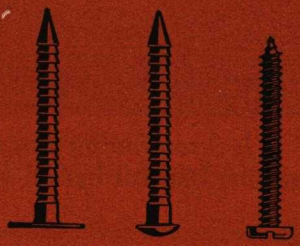
Furring strip and clip

Tile reinforcement spline



Plain and tile attachment spline

Spear point nail



Annular nails and sheet metal screws

Furring strip splicer

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Manufactured by **THE YODER COMPANY**
FABRICATING DIVISION
5500 WALWORTH AVENUE • CLEVELAND 2, OHIO

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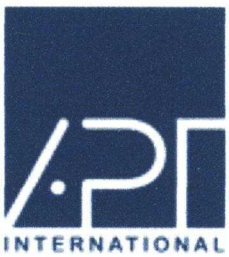

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